

BRITISH MEDICAL ASSOCIATION.  
SUBSCRIPTIONS FOR 1893.

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## British Medical Journal.

SATURDAY, JUNE 17TH, 1893.

### ANIMAL EXTRACTS AS THERAPEUTIC AGENTS.

WE published lately an article by Professor Brown-Séquard, in which he gives a summary of his experiments on the effects of the injection of the extracts of various organs. These experiments have been published before in various Continental journals, and readers of our *EPITOME* will have noticed week by week abstracts of these, as well of those by other workers on the same lines.

It is now some years since Brown-Séquard announced the wonderful effects which followed the subcutaneous injection of testicular extracts as exemplified in his own person; and though many jeered at him as the discoverer of the secret of perpetual youth, the notion has steadily gained ground that there is, after all, something in it. Since also, the success that has followed the injection of thyroid extract in myxœdema, we can hardly wonder that this belief has increased.

Physiologists have recently been making a number of observations, which show that many organs do more than what was formerly regarded as their functions. The experiments of Bradford on the kidney have shown that this organ does something else in addition to excreting urine; those of Minkowski and v. Mering on pancreatic diabetes, of Langlois and Abelous on the suprarenal capsules, and of Horsley and others on the thyroid, have led to the introduction of the expression "internal secretion." We think that this term is a rather unfortunately chosen one; but it, nevertheless, expresses that the organs in question have some action on the blood, and through it on the tissues generally, which influences their metabolic changes. Previous, however, to any of these experiments, it was a perfectly well recognised fact that removal of the essential organs of generation had a profound influence on the structure of the whole animal, and also on the mental tendencies of the individual.

But the precise *modus operandi* is in all these cases still a sealed book. The composition of the internal secretion, where it exists, is unknown. It is, however, presumed that an extract of the fresh organ must contain the active substance in the conglomeration of bodies which are extracted by glycerine, salt solutions, or whatever the solvent used may be. There can be little doubt that these substances are of a complex organic nature, substances which call on the resources of the organism to manufacture for itself. We can, therefore, hardly be surprised that if these substances are administered to a debilitated person unable to make them

for himself, some amount of temporary stimulant effect is produced; and in one instance at least—that of myxœdema—the curative result has justified the method used.

Fully granting this, we still feel compelled to doubt many of the other so-called cures. There is in all men a natural tendency to draw general conclusions from particular instances, to seize an idea and run it to death. In the causation of disease at one time it is germs, at another ptomaines, at another toxalbumoses, that are invoked to solve every mystery and explain every difficulty. In the treatment of disease, at one time mineral drugs, at another chemical drugs produced in the laboratory, are fashionable; at one time protective inoculation, at another curative inoculation is in the ascendant. All causes and all treatments have their proper places, but we may hope that we are not now to suffer an epidemic of universal injections. We hear of some injecting nerve extracts to cure neurasthenia and locomotor ataxy, heart extracts to cure heart disease, pancreatic extracts to cure diabetes, testicular extracts to cure old age and many other evils, including even phthisis and cancer.

Manufacturing chemists are making extracts not only of thyroid, but of nearly every organ in the body, even including the pituitary body, this last for the cure of acromegaly. We find medical men writing of these ideas and of the cures achieved in the most sanguine strain, and often upon no better evidence than quacks produce for their "cures." These injections may be and often are extremely poisonous; for although Brown-Séquard states that he has observed a rise of temperature only twice in 100,000 injections, we must remember Wooldridge's experiments; and we recollect, too, having heard of sloughing following injection of pancreas for diabetes. This last result is hardly surprising, for a pancreatic extract will contain not only the "internal secretion," but the external secretion also, and trypsin is a very powerful digestant, especially of tissues prone to disintegrate, like those of a diabetic.

Perhaps Massalongo<sup>1</sup> has hit the right nail on the head in an article he entitles "A New Phase of Suggestive Therapeutics." He found that in healthy animals testicular fluid had no effect; that in cases of disease the modifications are slight and transitory, and due to psychical tension and excitement; that in organic disease the improvement is due to suggestion and the influence of the imagination; and that such curative effects are best marked in cases of hysteria and neurasthenia, when there are expectations of relief, and that equally good results were here obtained by inert substances with equal facility.

One more quotation in conclusion. Professor Brown-Séquard says: "To our utter surprise, the disease that gave the greatest number of ameliorations is cancer superficially situated." We confess that we cannot share this surprise; the recent developments of Matteism should have prepared Professor Brown-Séquard to guard against the fallacies into which he has unwittingly dropped.

### NOTIFICATION OF INFECTIOUS DISEASE.

FROM a legal point of view the working of the Infectious Diseases Notification Act 1889 does not seem to be entirely satisfactory. A correspondent in September last pointed out that in some districts the authorities are inclined to construe

<sup>1</sup> *Ref. Med.*, Feb., 1893.